

Aerial Detection Survey – Update, June 7th to 9th, 2011

Background: Annual aerial detection surveys for tree injury and mortality have been conducted in California since 1993. This is an update of survey status for the 2011 survey season from June 7th to June 9th, 2011.

Objective: Detect and map tree injury and mortality in California / USFS Region 5.

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Date: June 7th and 9th, 2011. The early timing was selected to avoid seasonal color change of California buckeye.

Methodology: Recently dead or injured trees (trees still retaining dead foliage) were mapped visually by surveyors using digital aerial sketch-mapping systems flying in a light fixed-wing aircraft approximately 1,000 feet above ground level. Photographs were also taken of the mapped trees to aid in ground visits. Surveyors recorded number and species of dead trees and type of damage (mortality, defoliation, branch flagging) at each mapped location.

Details:

- Over two million acres over portions of 7 counties – Alameda, Contra Costa, Santa Clara, Santa Cruz, San Mateo, Monterey and San Luis Obispo Counties. The Monterey District of the Los Padres National Forest was surveyed, as well as a portion of the Golden Gate National Recreation Area. See Figure 1.
- The primary damage agent mapped was sycamore anthracnose, which had completely defoliated sycamores throughout most riparian areas in the survey area. See Figure 2. Also mapped was continued mortality within perimeters of the Basin fire of 2008, and about 400 acres with sudden oak death. Oak mortality from SOD was relatively rare, even in areas highly impacted in previous years. Also, 400 acres of defoliation from California oak worm was mapped near Carmel Valley. See Figure 3.
- Survey data, including locations of mortality, flight-lines, and photographs are available for viewing in Google Earth and Google Maps at: <http://www.fs.fed.us/r5/spf/fhp/fhm/aerial/2011/kmz/index.shtml>

Figure 1. Flown area and mapped tree damage

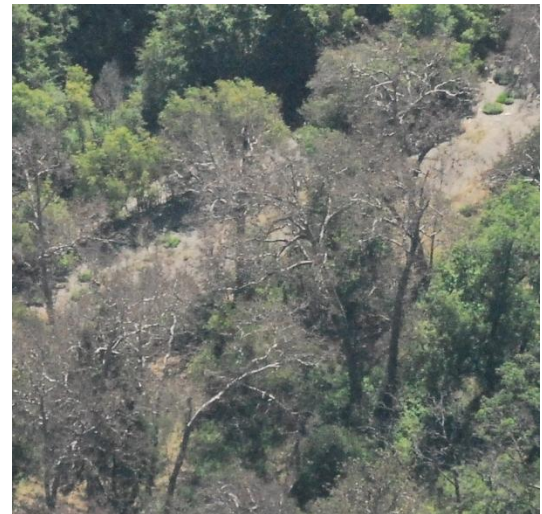
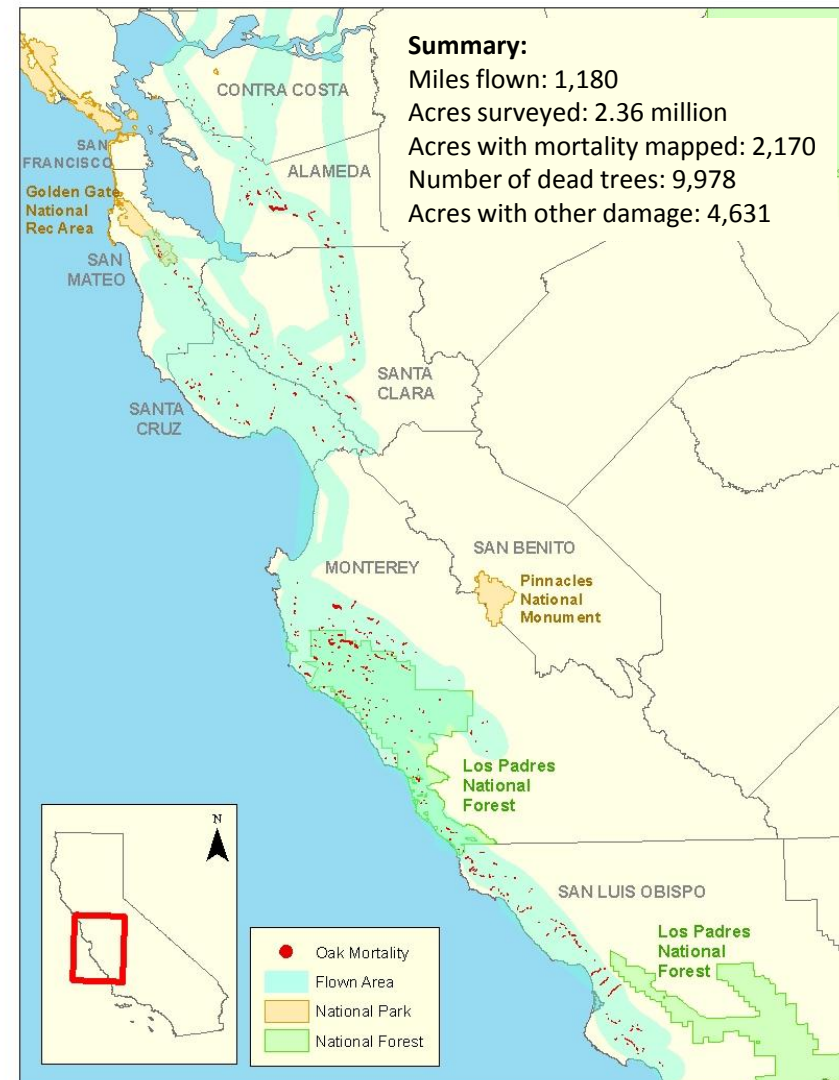


Figure 2. Sycamore defoliation near Livermore

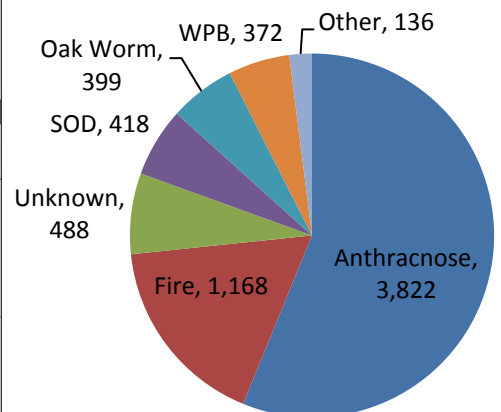


Figure 3. Agents mapped (in acres)

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